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Memorandum

To: S. J. Trent Date: T4180-03-SLF-042
From: S. L. Fitzgerald, Manager *H. A. Smith* Telephone: October 1, 2003
WSCF Analytical Services

cc:	W/Attachments	W/O Attachments
	T. F. Dale	S3-28 M. Neely
	S. L. Fitzgerald	S3-30 D. Hart
	H. K. Meznarich	S3-30 L. C. Swanson
	J. E. Trechter	S3-30 File/LB

Subject: FINAL RESULTS FOR 200-PW-2/200-PW-4 OU- BOREHOLE SOIL SAMPLING-
SAMPLE DELIVERY GROUP **(WSCF20031193)**, SAF NUMBER F03-006

References: (1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEN-001,
October 31, 2002

(2) HNF-SD-CD-QAPP-017, Rev. 5, Waste Sampling and Characterization Facility
Quality Assurance Plan

This letter contains a narrative (Attachment 1) for the sample delivery group (WSCF20031193),
the analytical results (Attachment 2) and the sample receipt information (Attachment 3).

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Attachments 3

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T4180-03-SLF-042

ATTACHMENT 1

NARRATIVE

Consisting of 3 pages
Cover page not included

Sample Delivery Group	WSCF20031193
Sample Matrix	Soil
Sample Visual	Brown
SAF Number	F03-006
Data Deliverable	Summary Report

Introduction

One (1) soil sample (B173W7) from the GPP was received at the WSCF Laboratory on August 28, 2003. The sample was analyzed for those analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Protection Program- Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and Request for Sample Analysis forms are included as Attachment 3.

Analytical Methodology for Requested Analyses

- PCB's by EPA SW-846 Method 8082. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8 and ICP-AES Metals by EPA SW-846 Method 6010A. Analytical work was performed with no deviations to the approved method.
- Semi-VOA's by EPA SW-846 Method 8270B. Analytical work was performed with no deviations to the approved method.
- Alcohols and Glycols by EPA SW-846 Method 8015. Analytical work was performed with no deviations to the approved method.
- WTPH-D by WDOE Method NWTPH-Dx. Analytical work was performed with no deviations to the approved method.
- WTPH-G by WDOE Method NWTPH-Gx. Analytical work was performed with no deviations to the approved method.
- IC Anions and Ammonium by EPA SW-846 Method 300.0 and 300.7. Analytical work was performed with no deviations to the approved method for Ammonium, but a deviation was required for the Anions (see comments below).

- The pH by EPA Method 150.1. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- Cyanide by EPA SW-846 Method 9010. Analytical work was performed with no deviations to the approved method.
- All RadChem analyses (AEA's, GEA) were run by internal WDOE accredited WSCF procedures. Analytical work was performed with no deviations to the approved method.

Comments

PCB's – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-29 and 2-30 for QC details.

ICP-MS and ICP-AES Metals – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-15, 2-16, 2-17, 2-18, 2-19 and 2-41 for QC details. The QC associated with the ICP-AES (page 2-41) is a different format because multiple sample delivery groups were ran for the requested elements. WSCF sample number W030000775 is GPP sample B173W7 for this group.

Semi-VOA's – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-23 2-24, 2-25, 2-26, 2-27 and 2-28 for QC details. Compounds listed on the tentatively identified peak report with an "N" qualifier have been identified with the program used to interpret the raw data.

Alcohols and Glycols – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-39 and 2-40 for QC details.

WTPH-D – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-31 for details.

WTPH-G – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-38 for details.

IC Anions – The client requested hold time(s) for this analysis was not met. The client was notified and requested WSCF to continue with this analysis. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-32and 2-33 for QC details.

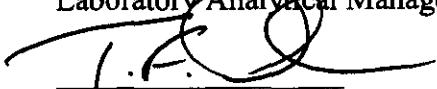
NH4 – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-34 for QC details.

Percent Solids – PCB's, Semi-VOA's, Alcohols and Glycols, WTPH-G and WTPH-D analytical results were corrected for percent solids. All other analytical results were reported for the sample as received.

CN – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-20 for QC details.

RadChem – There are no hold times associated with these WDOE accredited methods. Except for GEA, a Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-21, 2-22, 2-35, 2-36 and 2-37 for QC details.

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.



Troy Dale
WSCF Production Control

Abbreviations

Hg – mercury
IC – ion chromatography
ICP – inductively coupled plasma
ICP/AES – ICP/atomic emission spectroscopy
ICP/MS – ICP/mass spectrometry
Total U – total uranium
AT/TB – total alpha/total beta
AEA – Alpha Energy Analysis
WTPH-G – Total Hydrocarbons-Gasoline

Am – americium
Cm - curium
Pu – plutonium
Np – neptunium
GEA – gamma energy analysis
H3 – Tritium
Sr – Strontium 89, 90
WTPH-D – Total Hydrocarbons-Diesel
TSS – Total Suspended Solids

T4180-03-SLF-042

ATTACHMENT 2

ANALYTICAL RESULTS

Consisting of 41 pages
Cover page not included

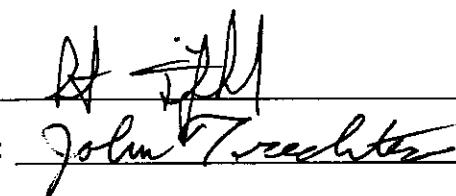
WSCF
ANALYTICAL RESULTS REPORT

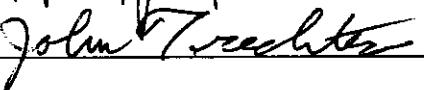
for

Ground Water Protection Program

Richland, WA 99352

Attention: Steve Trent

Analytical: 

Client Services: 

All results are reported on an "as received" basis unless otherwise noted in the comment section.

Confidentiality Notice: The information contained in this report is privileged and confidential information intended only for the use of the addressee. If the reader of this report is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone at (509) 373-7020.

Contract#: F03-006

Report#: WSCF20031193

Report Date: 30-sep-2003

Report WGPP/ver. 1

Ground Water Protection Program

Page 1

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-006: 200-PW-2/PW-4

Group #: WSCF20031193

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W030000775	B173W7	TRENT	57-12-5	Cyanide	SOIL	LA-695-402	U	< 0.200	mg/kg	1.00	0.20	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	NH4-N	Nitrogen in ammonium	SOIL	LA-503-401	U	< 0.200	mg/kg	50.00	0.20	09/23/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	TS	Total solids	SOIL	LA-519-412		95.6	%	1.00	0.0	09/18/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	PH	pH Measurement	SOIL	LA-212-411		8.71	pH	1.00	0.010	09/30/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	60-29-7	Diethyl ether	SOIL	Organics	U	< 5.00e+03	ug/kg	1.00	5.0e+03	09/11/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	67-56-1	Methanol	SOIL	Organics	U	< 1.00e+03	ug/kg	1.00	1.0e+03	09/11/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	107-21-1	Ethylene glycol	SOIL	Organics	U	< 5.00e+03	ug/kg	1.00	5.0e+03	09/11/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471	U	0.0140	pCi/g	1.00	0.035	09/05/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E.T.C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.0210	pCi/g	1.00	0.0	09/05/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	16984-48-8	Fluoride	SOIL	LA-533-410	U	< 0.350	mg/kg	50.00	0.35	09/11/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	16887-00-6	Chloride	SOIL	LA-533-410	B	1.16	mg/kg	50.00	0.70	09/11/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	NO2-N	Nitrogen in Nitrite	SOIL	LA-533-410	U	< 0.450	mg/kg	50.00	0.45	09/11/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	NO3-N	Nitrogen in Nitrate	SOIL	LA-533-410	B	20.4	mg/kg	50.00	0.25	09/11/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	14265-44-2	Phosphate	SOIL	LA-533-410	U	< 0.650	mg/kg	50.00	0.65	09/11/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	B	29.6	mg/kg	50.00	1.2	09/11/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-462	U	3.16e-03	pCi/g	1.00	0.012	09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E.T.C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	6.54e-03	pCi/g	1.00	0.0	09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	14234-35-6	Antimony-125	SOIL	LA-508-462	U	6.57e-03	pCi/g	1.00	0.030	09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E.T.C	Sb-125 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0178	pCi/g	1.00	0.0	09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	13967-70-9	Cesium-134	SOIL	LA-508-462	U	0.0298	pCi/g	1.00	0.015	09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E.T.C	Cs-134 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0126	pCi/g	1.00	0.0	09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-462	U	4.89e-04	pCi/g	1.00	0.011	09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E.T.C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	4.89e-03	pCi/g	1.00	0.0	09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	14683-23-9	Europium-152	SOIL	LA-508-462	U	4.26e-03	pCi/g	1.00	0.034	09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E.T.C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0216	pCi/g	1.00	0.0	09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	15585-10-1	Europium-154	SOIL	LA-508-462	U	-8.87e-03	pCi/g	1.00	0.035	09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E.T.C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0239	pCi/g	1.00	0.0	09/24/03 08/28/03 08/28/03

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

J - Estimated Value

RQ=Result Qualifier

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. I

Ground Water Protection Program

Page 2

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-006: 200-PW-2/PW-4

Group #: WSCF20031193

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W030000775	B173W7	TRENT	14391-16-3	Europium-155	SOIL	LA-508-462	U	0.0147	pCi/g	1.00	0.048 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0288	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	15832-50-5	Tin-126	SOIL	LA-508-462	U	0.131	pCi/g	1.00	0.20 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Sn-126 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0359	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	15262-20-1	Radium-228	SOIL	LA-508-462		0.556	pCi/g	1.00	0.036 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Ra-228 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.101	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	13982-63-3	Radium-226	SOIL	LA-508-462		0.490	pCi/g	1.00	0.022 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Ra-226 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0818	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	13982-39-3	Zinc-65	SOIL	LA-508-462	U	1.38e-04	pCi/g	1.00	0.024 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Zn-65 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	1.38e-03	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	14681-63-1	Niobium-94	SOIL	LA-508-462	U	-2.54e-03	pCi/g	1.00	0.011 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Nb-94 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	6.53e-03	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	13968-53-1	Ruthenium-103	SOIL	LA-508-462	U	-5.02e-03	pCi/g	1.00	0.011 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Ru-103 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	6.68e-03	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	13967-48-1	Ruthenium-106	SOIL	LA-508-462	U	-0.0530	pCi/g	1.00	0.093 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Ru-106 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0562	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	13966-06-8	Tin-113	SOIL	LA-508-462	U	2.31e-03	pCi/g	1.00	0.014 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Sn-113 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	8.39e-03	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	14762-78-8	Cerium-144	SOIL	LA-508-462	U	-0.0246	pCi/g	1.00	0.090 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Ce-144 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0583	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	14913-50-9	Thallium-208	SOIL	LA-508-462		0.163	pCi/g	1.00	0.011 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Tl-208 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0275	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	14913-49-6	Bismuth-212	SOIL	LA-508-462		0.320	pCi/g	1.00	0.085 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Bi-212 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0941	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	15092-94-1	Lead-212	SOIL	LA-508-462		0.575	pCi/g	1.00	0.023 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Pb-212 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0788	pCi/g	1.00	0.0 09/24/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	14733-03-0	Bismuth-214	SOIL	LA-508-462		0.490	pCi/g	1.00	0.022 09/24/03 08/28/03 08/28/03

MDL=Minimum Detection Limit

RQ=Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

J - Estimated Value

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1

Ground Water Protection Program

WSCF

ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
F03-006: 200-PW-2/PW-4

Group #: WSCF20031193

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Unit	DF	MDL	Analyze	Sample	Receive		
					Method	RQ								
W030000775	B173W7	TRENT	E,T,C	Bi-214 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0818	pCi/g	1.00	0.0	09/24/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	15067-28-4	Lead-214	SOIL	LA-508-462		0.558	pCi/g	1.00	0.025	09/24/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	E,T,C	Pb-214 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0787	pCi/g	1.00	0.0	09/24/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	14331-83-0	Actinium-228	SOIL	LA-508-462		0.556	pCi/g	1.00	0.036	09/24/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	E,T,C	Ac-228 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.101	pCi/g	1.00	0.0	09/24/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	15065-10-8	Thorium-234	SOIL	LA-508-462	U	0.650	pCi/g	1.00	0.65	09/24/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	E,T,C	Th-234 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.486	pCi/g	1.00	0.0	09/24/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	15117-96-1	Uranium-235	SOIL	LA-508-462	U	0.0700	pCi/g	1.00	0.094	09/24/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	E,T,C	U-235 Rel. Count Error (GEA)	SOIL	LA-508-462	+-	0.0223	pCi/g	1.00	0.0	09/24/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	14596-10-2	Americium-241	SOIL	LA-508-462	U	-9.10e-03	pCi/g	1.00	0.076	09/24/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	E,T,C	Am-241 Rel Count Error (GEA)	SOIL	LA-508-462	+-	0.0501	pCi/g	1.00	0.0	09/24/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7440-69-9	Bismuth	SOIL	LA-505-411	U	< 4.96	mg/kg	49.61	5.0	09/23/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7440-42-8	Boron	SOIL	LA-505-411	U	< 5.06	mg/kg	49.61	5.1	09/23/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7440-36-0	Antimony	SOIL	LA-505-412	U	< 4.94	mg/kg	9.88	4.9	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7440-38-2	Arsenic	SOIL	LA-505-412		3.32	mg/kg	9.88	3.0	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7440-39-3	Barium	SOIL	LA-505-412		36.2	mg/kg	9.88	2.0	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7440-41-7	Beryllium	SOIL	LA-505-412	U	< 2.96	mg/kg	9.88	3.0	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7440-47-3	Chromium	SOIL	LA-505-412		8.83	mg/kg	9.88	3.0	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7440-50-8	Copper	SOIL	LA-505-412		6.30	mg/kg	9.88	4.9	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7439-92-1	Lead	SOIL	LA-505-412	U	< 11.9	mg/kg	9.88	12	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7440-02-0	Nickel	SOIL	LA-505-412		9.58	mg/kg	9.88	4.9	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7440-22-4	Silver	SOIL	LA-505-412	U	< 1.98	mg/kg	9.88	2.0	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7440-61-1	Uranium	SOIL	LA-505-412	U	< 0.988	mg/kg	9.88	0.99	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	7439-97-6	Mercury	SOIL	LA-505-412	U	< 0.988	mg/kg	9.88	0.99	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	NWTPH	U	< 250	ug/kg	1.00	2.5e+02	09/11/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/09/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	09/09/03	08/28/03	08/28/03

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RQ=Result Qualifier

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Report WGPP/ver. 1

Ground Water Protection Program

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-006: 200-PW-2/PW-4

Group #: WSCF20031193

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Unit	DF	MDL	Analyze Sample	Receive	
					Method	RQ						
W030000775	B173W7	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 50.0	ug/kg	1.00	50	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471	U	0.0150	pCi/g	1.00	0.046	09/08/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.0285	pCi/g	1.00	0.0	09/08/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471	U	0.0110	pCi/g	1.00	0.017	09/08/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err.	SOIL	LA-508-471	+-	0.0121	pCi/g	1.00	0.0	09/08/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 670	ug/kg	1.00	6.7e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 330	ug/kg	1.00	3.3e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 100	ug/kg	1.00	1.0e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 310	ug/kg	1.00	3.1e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 310	ug/kg	1.00	3.1e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	100-01-6	4-Nitroaniline	SOIL	LA-523-456	U	< 260	ug/kg	1.00	2.6e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	101-55-3	4-Bromophenylphenyl ether	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	105-67-9	2,4-Dimethylphenol	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	106-47-8	4-Chloroaniline	SOIL	LA-523-456	U	< 97.0	ug/kg	1.00	97	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	108-60-1	Bis(2-chloro-1-methylethyl)eth	SOIL	LA-523-456	U	< 260	ug/kg	1.00	2.6e+02	09/09/03 08/28/03 08/28/03

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Report WGPP/ver. I

Ground Water Protection Program

Page 5

WSCF

ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
FO3-006: 200-PW-2/PW-4

Group #: WSCF20031193

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W030000775	B173W7	TRENT	111-44-4	Bis(2-chloroethyl) ether	SOIL	LA-523-456	U	< 260	ug/kg	1.00	2.6e+02 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	111-91-1	Bis(2-Chloroethoxy)methane	SOIL	LA-523-456	U	< 120	ug/kg	1.00	1.2e+02 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	117-81-7	Bis(2-ethylhexyl) phthalate	SOIL	LA-523-456	U	< 580	ug/kg	1.00	5.8e+02 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	117-84-0	Di-n-octylphthalate	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	118-74-1	Hexachlorobenzene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	120-12-7	Anthracene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	120-83-2	2,4-Dichlorophenol	SOIL	LA-523-456	U	< 83.0	ug/kg	1.00	83 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	131-11-3	Dimethyl phthalate	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	132-64-9	Dibenzofuran	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	191-24-2	Benzo(g,h)perylene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	193-39-5	Indeno[1,2,3-cd]pyrene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	205-99-2	Benzo(b)fluoranthene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	206-44-0	Fluoranthene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	207-08-9	Benzo(k)fluoranthene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	208-96-8	Acenaphthylene	SOIL	LA-523-456	U	< 83.0	ug/kg	1.00	83 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	218-01-9	Chrysene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	50-32-8	Benzo(a)pyrene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	51-28-5	2,4-Dinitrophenol	SOIL	LA-523-456	U	< 700	ug/kg	1.00	7.0e+02 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	53-70-3	Dibenz[a,h]anthracene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	534-52-1	4,6-Dinitro-2-methylphenol	SOIL	LA-523-456	U	< 700	ug/kg	1.00	7.0e+02 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	541-73-1	1,3-Dichlorobenzene	SOIL	LA-523-456	U	< 330	ug/kg	1.00	3.3e+02 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	56-55-3	Benzo(a)anthracene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	606-20-2	2,6-Dinitrotoluene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	7005-72-3	4-Chlorophenylphenyl ether	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	77-47-4	Hexachlorocyclopentadiene	SOIL	LA-523-456	U	< 330	ug/kg	1.00	3.3e+02 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	78-59-1	Isophorone	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70 09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	84-66-2	Diethylphthalate	SOIL	LA-523-456	J	360	ug/kg	1.00	1.9e+02 09/09/03 08/28/03 08/28/03

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Report WGPP/ver. 1

Ground Water Protection Program

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F03-006: 200-PW-2/PW-4

Group #: WSCF20031193

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze Sample Receive	
					Method	RQ						
W030000775	B173W7	TRENT	84-74-2	Di-n-butylphthalate	SOIL	LA-523-456	U	< 90.0	ug/kg	1.00	90	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	85-01-8	Phenanthrene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	85-68-7	Butylbenzylphthalate	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	86-30-6	N-Nitrosodiphenylamine	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	86-73-7	Fluorene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	86-74-8	Carbazole	SOIL	LA-523-456	U	< 83.0	ug/kg	1.00	83	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	87-68-3	Hexachlorobutadiene	SOIL	LA-523-456	U	< 380	ug/kg	1.00	3.8e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	88-74-4	2-Nitroaniline	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	88-75-5	2-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	91-20-3	Naphthalene	SOIL	LA-523-456	U	< 300	ug/kg	1.00	3.0e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	91-57-6	2-Methylnaphthalene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	91-58-7	2-Chloronaphthalene	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	91-94-1	3,3'-Dichlorobenzidine	SOIL	LA-523-456	U	< 83.0	ug/kg	1.00	83	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	95-48-7	2-Methylphenol (cresol, o-)	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	95-50-1	1,2-Dichlorobenzene	SOIL	LA-523-456	U	< 380	ug/kg	1.00	3.8e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	95-95-4	2,4,5-Trichlorophenol	SOIL	LA-523-456	U	< 77.0	ug/kg	1.00	77	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	98-95-3	Nitrobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	99-09-2	3-Nitroaniline	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	65794-96-9	3 & 4 Methylphenol Total	SOIL	LA-523-456	U	< 120	ug/kg	1.00	1.2e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	67-72-1	Hexachloroethane	SOIL	LA-523-456	U	< 490	ug/kg	1.00	4.9e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	88-06-2	2,4,6-Trichlorophenol	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	111-76-2	2-Butoxyethanol	SOIL	LA-523-456	U	< 100	ug/kg	1.00	1.0e+02	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 70.0	ug/kg	1.00	70	09/09/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471		0.120	pCi/g	1.00	0.011	09/05/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471		+ - 0.0408	pCi/g	1.00	0.0	09/05/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	15117-96-1	Uranium-235	SOIL	LA-508-471	U	3.40e-03	pCi/g	1.00	0.012	09/05/03 08/28/03 08/28/03
W030000775	B173W7	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471		+ - 6.80e-03	pCi/g	1.00	0.0	09/05/03 08/28/03 08/28/03

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Report WGPP/ver. 1

Ground Water Protection Program

WSCF

ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
F03-006: 200-PW-2/PW-4

Group #: WSCF20031193

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze Sample	Receive	
					Method	RQ							
W030000775	B173W7	TRENT	U-238	URANIUM-238	SOIL	LA-508-471	0.140	pCi/g	1.00	4.2e-03	09/05/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	E.T.C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471	+ 0.0462	pCi/g	1.00	0.10	09/05/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U < 3.90e +03	ug/kg	1.00	3.9e +03	09/08/03	08/28/03	08/28/03
W030000775	B173W7	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U < 3.90e +03	ug/kg	1.00	3.9e +03	09/08/03	08/28/03	08/28/03

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Report WGPP/ver. I

Ground Water Protection Program

WSCF

ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F03-006

Group #: WSCF20031193

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-MS: High silver LCS recoveries using 200.8 criteria. These results are within manufacturer specifications so no flags are issued. SVOA: Samples are moisture corrected and reported on a dry weight basis. The extracts had to be dried twice in order to remove all the water. For target compounds which are below the lowest calibration standard but above the detection limit a J-flag is added. den PCB: SPK-RPD a little high (21%) for one surrogate. All other QC good though. gar TPHD: Diesel MS a bit low at 74%, lcl is 75%, all other QC good though. gar 8015: SPK-RPD high for Diethylether at 22.6%.gar IC:Chloride, nitrate-n, sulfate detected at concentrations less than that of the lowest values on the calibration curve RPD limits do not apply for low levels (chloride). jmv Sample W030000775 for PU/AM test had poor RPD but sample activity is below detection.lmh ICP-AES: Bismuth LCS was low (57%) No qualifiers given as the MS/MSD and all other QC was within limits. ldl Low spike recoveries probably due to matrix and may cause low bias for sample result -wb
W030000775	B173W7	TRENT	VALTEST	Sulfate (SO4) by IC

Lab Areas: VALGROUP - Group Validation
 LOGSAMP - Login for Sample

VALTEST - Test Validation
 LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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WSCF
TENTATIVELY IDENTIFIED PEAK REPORT

Attention:
Project Number

Steve Trent
F03-006 :200-PW-2/PW-4

Group #: WSCF20031193

Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
W030000775	B173W7	TRENT	Gamma Energy Analysis-grd H2O	K-40 Count Error			14	%
W030000775	B173W7	TRENT	Gamma Energy Analysis-grd H2O	K-40			15	pCi/g

RQ=Result Qualifier

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Ground Water Protection Program

WGPPE v 0 Report #: 20031193

Report Date: 30-sep-2003

Page 1

WSCF

METHOD REFERENCES REPORT

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-212-411	Determination of Soil pH Measurement EPA SW-846 9045C	SOIL AND WASTE pH
LA-503-401	LA-503-401: ANALYSIS OF CATIONS BY ION CHROMATOGRAPHY EPA-600/4-86-024 300.7	Dissolved Sodium, Ammonium, Potassium, and Calcium in Wet Deposition by Chemical
LA-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE EPA SW-846 6010B	INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY
LA-505-412	LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY EPA-600/R-94-111 200.8	DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS
LA-508-462	Gamma Energy Analysis -- the Genie System -- WSCF None	No reference to any industry method.
LA-508-471	LA-508-471: ALPHA ENERGY ANALYZER DATA ACQUISITION AND SYSTEM CHECKOUT USING ALP None	No reference to any industry method.
LA-519-412	LA-519-412: TOTAL RESIDUE/% SOLIDS DRIED AT 103 - 105 C EPA-600/4-79-020 160.3	RESIDUE, TOTAL
	Standard Methods 2540B	Total Solids Dried at 103-105 C
LA-523-427	LA-523-427: POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY EPA SW-846 3510C	SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION
	EPA SW-846 3545	PRESSURIZED FLUID EXTRACTION (PFE)

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at <http://apweb02/asponlinedocs/wscf/sample%20mgmt/ProcedureMethodCrossReference.pdf>. This document includes on-line links to full-text versions of the procedures and methods, where available.

Report Date: 30-sep-2003

Report #: WSCF20031193

Report WGPPM/0

Page 1

WSCF

METHOD REFERENCES REPORT

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	EPA SW-846 3665A	SULFURIC ACID/PERMANGANATE CLEANUP
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8082	POLYCHLORINATED BIPHENYLS (PCBs) BY GAS CHROMATOGRAPHY
LA-523-456	LA-523-456: SEMIVOLATILE SAMPLE ANALYSIS BY SW-846, METHOD 8270C	
	EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
	EPA SW-846 8270C	SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
LA-533-410	LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY	
	EPA-600/R-94-111 300	DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY
LA-695-402	LA-695-402: DETERMINATION OF CYANIDE BY MIDIDISTILLATION AND SPECTROPHOTOMETRIC	
	EPA-600/4-79-020 335.2	Cyanide, Total
NWTPH	NWTPH-Diesel and/or Gasoline	
	WDOE NWTPH-Dx/Gx	Total Petroleum Hydrocarbons - Diesel/Gasoline
Organics	Organics - Alcohols, Glycols	
	EPA SW-846 8015B	Nonhalogenated Organics Using GC/FID

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at
<http://apweb02/asponlinedocs/wscf/sample%20mgmt/ProcedureMethodCrossReference.pdf>. This document includes on-line links to full-text versions of the procedures and methods, where available.

Report Date: 30-sep-2003

Report #: WSCF20031193

Report WGPPM/O

Page 2

W13q Worklist/Batch/QC Report for Group# WSCF20031193

WL#	S#	Batch	QC#	Tray	Type	Sample#	Test
				SAMPLE		W030000775	Percent Solids
				SAMPLE		W030000775	pH Soil and Waste Measurement
20288	1	20668	23477	BLANK			ICP-2008 MS All possible metal
20288	2	20668	23477	LCS			ICP-2008 MS All possible metal
20288	4	20668	23477	MS		W030000701	ICP-2008 MS All possible metal
20288	5	20668	23477	MSD		W030000701	ICP-2008 MS All possible metal
20288	9	20668	23477	MS		W030000709	ICP-2008 MS All possible metal
20288	10	20668	23477	MSD		W030000709	ICP-2008 MS All possible metal
20288	12	20668	23477	MS		W030000775	ICP-2008 MS All possible metal
20288	13	20668	23477	MSD		W030000775	ICP-2008 MS All possible metal
20288	11	20668	23477	SAMPLE		W030000775	ICP-2008 MS All possible metal
20288	15	20668	23477	MS		W030000799	ICP-2008 MS All possible metal
20288	16	20668	23477	MSD		W030000799	ICP-2008 MS All possible metal
				23480	BLANK		Cyanide by Midi/Spectrophotom
				23480	BLNK-PREP		Cyanide by Midi/Spectrophotom
				23480	DUP		Cyanide by Midi/Spectrophotom
				23480	LCS		Cyanide by Midi/Spectrophotom
				23480	LCS-2		Cyanide by Midi/Spectrophotom
				23480	MS	W030000705	Cyanide by Midi/Spectrophotom
				23480	MSD	W030000705	Cyanide by Midi/Spectrophotom
				23480	SPK-RPD	W030000705	Cyanide by Midi/Spectrophotom
				23480	SAMPLE	W030000775	Cyanide by Midi/Spectrophotom
20263	1	20652	23495	BLANK			Americium by AEA
20263	2	20652	23495	LCS			Americium by AEA
20263	3	20652	23495	DUP		W030000775	Americium by AEA
20263	4	20652	23495	SAMPLE		W030000775	Americium by AEA
20264	1	20651	23496	BLANK			Plutonium Isotopics by AEA
20264	2	20651	23496	LCS			Plutonium Isotopics by AEA
20264	3	20651	23496	DUP		W030000775	Plutonium Isotopics by AEA
20264	4	20651	23496	SAMPLE		W030000775	Plutonium Isotopics by AEA
				23527	BLANK		SW-846 8270B Semi-Vols
				23527	LCS		SW-846 8270B Semi-Vols
				23527	SAMPLE	W030000775	SW-846 8270B Semi-Vols
				23527	SURR	W030000775	SW-846 8270B Semi-Vols
				23527	MS	W030000789	SW-846 8270B Semi-Vols
				23527	MSD	W030000789	SW-846 8270B Semi-Vols
				23527	SPK-RPD	W030000789	SW-846 8270B Semi-Vols
				23529	BLANK		PCBs complete list
				23529	LCS		PCBs complete list
				23529	SAMPLE	W030000775	PCBs complete list
				23529	SURR	W030000775	PCBs complete list
				23529	MS	W030000789	PCBs complete list
				23529	MSD	W030000789	PCBs complete list
				23529	SPK-RPD	W030000789	PCBs complete list
				23536	BLANK		WTPH-D TPH Diesel Range (Wa)
				23536	LCS		WTPH-D TPH Diesel Range (Wa)
				23536	SAMPLE	W030000775	WTPH-D TPH Diesel Range (Wa)

	23536	SURR	W030000775	WTPH-D TPH Diesel Range (Wa)
	23536	MS	W030000789	WTPH-D TPH Diesel Range (Wa)
	23536	MSD	W030000789	WTPH-D TPH Diesel Range (Wa)
	23536	SPK-RPD	W030000789	WTPH-D TPH Diesel Range (Wa)
20416	1	20797 23618	BLANK	Anions by Ion Chromatography
20416	8	20797 23618	BLANK	Anions by Ion Chromatography
20416	3	20797 23618	LCS	Anions by Ion Chromatography
20416	5	20797 23618	DUP	W030000775 Anions by Ion Chromatography
20416	6	20797 23618	MS	W030000775 Anions by Ion Chromatography
20416	7	20797 23618	MSD	W030000775 Anions by Ion Chromatography
20416	4	20797 23618	SAMPLE	W030000775 Anions by Ion Chromatography
20431	9	20814 23653	SAMPLE	W030000775 ICP Metals Analysis, Grd H2O P
20447	3	20830 23663	BLNK-PREP	Ammonia (N) by IC
20447	8	20830 23663	BLNK-PREP	Ammonia (N) by IC
20447	1	20830 23663	LCS	Ammonia (N) by IC
20447	5	20830 23663	DUP	W030000775 Ammonia (N) by IC
20447	6	20830 23663	MS	W030000775 Ammonia (N) by IC
20447	7	20830 23663	MSD	W030000775 Ammonia (N) by IC
20447	4	20830 23663	SAMPLE	W030000775 Ammonia (N) by IC
20265	1	20650 23666	BLANK	Uranium Isotopics by AEA
20265	2	20650 23666	LCS	Uranium Isotopics by AEA
20265	3	20650 23666	DUP	W030000775 Uranium Isotopics by AEA
20265	4	20650 23666	SAMPLE	W030000775 Uranium Isotopics by AEA
20219	1	20602 23667	BLANK	Gamma Energy Analysis-grd H2O
20219	2	20602 23667	LCS	Gamma Energy Analysis-grd H2O
20219	3	20602 23667	DUP	W030000775 Gamma Energy Analysis-grd H2O
20219	4	20602 23667	SAMPLE	W030000775 Gamma Energy Analysis-grd H2O
20477	1	20858 23717	BLANK	NWTPH-GX TPH Gasoline Range
20477	2	20858 23717	LCS	NWTPH-GX TPH Gasoline Range
20477	4	20858 23717	DUP	W030000775 NWTPH-GX TPH Gasoline Range
20477	5	20858 23717	MS	W030000775 NWTPH-GX TPH Gasoline Range
20477	6	20858 23717	MSD	W030000775 NWTPH-GX TPH Gasoline Range
20477	3	20858 23717	SAMPLE	W030000775 NWTPH-GX TPH Gasoline Range
20477	6	20858 23717	SPK-RPD	W030000775 NWTPH-GX TPH Gasoline Range
20488	1	20874 23727	BLANK	Alcohols, Glycols - 8015
20488	2	20874 23727	LCS	Alcohols, Glycols - 8015
20488	4	20874 23727	DUP	W030000775 Alcohols, Glycols - 8015
20488	5	20874 23727	MS	W030000775 Alcohols, Glycols - 8015
20488	6	20874 23727	MSD	W030000775 Alcohols, Glycols - 8015
20488	3	20874 23727	SAMPLE	W030000775 Alcohols, Glycols - 8015
20488	6	20874 23727	SPK-RPD	W030000775 Alcohols, Glycols - 8015

WSCF ANALYTICAL LABORATORY QC REPORT

15

SDG Number: WSCF20031193

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-006

Sample Date: 08/13/03

Receive Date: 08/13/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W030000701

BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	373.427	94.778	% Recov	09/08/03	70.000	130.000	
MS	Arsenic	7440-38-2	370.867	94.129	% Recov	09/08/03	70.000	130.000	
MS	Barium	7440-39-3	368.4	93.503	% Recov	09/08/03	70.000	130.000	
MS	Beryllium	7440-41-7	363.5	92.259	% Recov	09/08/03	70.000	130.000	
MS	Chromium	7440-47-3	368.51	93.530	% Recov	09/08/03	70.000	130.000	
MS	Copper	7440-50-8	360.81	91.576	% Recov	09/08/03	70.000	130.000	
MS	Mercury	7439-97-6	19.23	97.614	% Recov	09/08/03	70.000	130.000	
MS	Nickel	7440-02-0	361.19	91.673	% Recov	09/08/03	70.000	130.000	
MS	Lead	7439-92-1	370.6	94.061	% Recov	09/08/03	70.000	130.000	
MS	Antimony	7440-36-0	378.1	95.964	% Recov	09/08/03	70.000	130.000	
MS	Uranium	7440-61-1	369.7	93.832	% Recov	09/08/03	70.000	130.000	
MSD	Silver	7440-22-4	355.827	90.311	% Recov	09/08/03	70.000	130.000	
MSD	Arsenic	7440-38-2	359.067	91.134	% Recov	09/08/03	70.000	130.000	
MSD	Barium	7440-39-3	336.1	85.305	% Recov	09/08/03	70.000	130.000	
MSD	Beryllium	7440-41-7	343.5	87.183	% Recov	09/08/03	70.000	130.000	
MSD	Chromium	7440-47-3	351.31	89.165	% Recov	09/08/03	70.000	130.000	
MSD	Copper	7440-50-8	341.71	86.728	% Recov	09/08/03	70.000	130.000	
MSD	Mercury	7439-97-6	18.63	94.569	% Recov	09/08/03	70.000	130.000	
MSD	Nickel	7440-02-0	348.19	88.373	% Recov	09/08/03	70.000	130.000	
MSD	Lead	7439-92-1	357.4	90.711	% Recov	09/08/03	70.000	130.000	
MSD	Antimony	7440-36-0	372.3	94.492	% Recov	09/08/03	70.000	130.000	
MSD	Uranium	7440-61-1	354.2	89.898	% Recov	09/08/03	70.000	130.000	

Lab ID: W030000709

BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	365.8	92.095	% Recov	09/08/03	70.000	130.000	
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WSCF ANALYTICAL LABORATORY QC REPORT

2 - 16

SDG Number: WSCF20031193

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-006

Sample Date: 08/13/03

Receive Date: 08/13/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Arsenic	7440-38-2	384.9	96.903	% Recov	09/08/03	70.000	130.000	
MS	Barium	7440-39-3	394.04	99.204	% Recov	09/08/03	70.000	130.000	
MS	Beryllium	7440-41-7	367.8	92.598	% Recov	09/08/03	70.000	130.000	
MS	Chromium	7440-47-3	370.63	93.311	% Recov	09/08/03	70.000	130.000	
MS	Copper	7440-50-8	376.288	94.735	% Recov	09/08/03	70.000	130.000	
MS	Mercury	7439-97-6	19.97	100.554	% Recov	09/08/03	70.000	130.000	
MS	Nickel	7440-02-0	372.29	93.729	% Recov	09/08/03	70.000	130.000	
MS	Lead	7439-92-1	369.6	93.051	% Recov	09/08/03	70.000	130.000	
MS	Antimony	7440-36-0	397.2	100.000	% Recov	09/08/03	70.000	130.000	
MS	Uranium	7440-61-1	367.2	92.447	% Recov	09/08/03	70.000	130.000	
MSD	Silver	7440-22-4	365.9	92.680	% Recov	09/08/03	70.000	130.000	
MSD	Arsenic	7440-38-2	387.3	98.100	% Recov	09/08/03	70.000	130.000	
MSD	Barium	7440-39-3	365.34	92.538	% Recov	09/08/03	70.000	130.000	
MSD	Beryllium	7440-41-7	355.8	90.122	% Recov	09/08/03	70.000	130.000	
MSD	Chromium	7440-47-3	368.13	93.245	% Recov	09/08/03	70.000	130.000	
MSD	Copper	7440-50-8	370.888	93.943	% Recov	09/08/03	70.000	130.000	
MSD	Mercury	7439-97-6	19.8	100.304	% Recov	09/08/03	70.000	130.000	
MSD	Nickel	7440-02-0	372.09	94.248	% Recov	09/08/03	70.000	130.000	
MSD	Lead	7439-92-1	366.7	92.882	% Recov	09/08/03	70.000	130.000	
MSD	Antimony	7440-36-0	391.3	99.113	% Recov	09/08/03	70.000	130.000	
MSD	Uranium	7440-61-1	357.2	90.476	% Recov	09/08/03	70.000	130.000	

Lab ID: W030000775

BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	375.3	95.545	% Recov	09/08/03	70.000	130.000	
MS	Arsenic	7440-38-2	380.185	96.788	% Recov	09/08/03	70.000	130.000	
MS	Barium	7440-39-3	362.48	92.281	% Recov	09/08/03	70.000	130.000	
MS	Beryllium	7440-41-7	321.6	81.874	% Recov	09/08/03	70.000	130.000	
MS	Chromium	7440-47-3	360.568	91.794	% Recov	09/08/03	70.000	130.000	
MS	Copper	7440-50-8	349.499	88.976	% Recov	09/08/03	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031193

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-006

Sample Date: 08/28/03

Receive Date: 08/28/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MS	Mercury	7439-97-6	19.47	99.134	% Recov	09/08/03	70.000	130.000	
MS	Nickel	7440-02-0	354.616	90.279	% Recov	09/08/03	70.000	130.000	
MS	Lead	7439-92-1	362.5	92.286	% Recov	09/08/03	70.000	130.000	
MS	Antimony	7440-36-0	396.2	100.866	% Recov	09/08/03	70.000	130.000	
MS	Uranium	7440-61-1	351.9	89.588	% Recov	09/08/03	70.000	130.000	
MSD	Silver	7440-22-4	403.9	100.174	% Recov	09/08/03	70.000	130.000	
MSD	Arsenic	7440-38-2	402.285	99.773	% Recov	09/08/03	70.000	130.000	
MSD	Barium	7440-39-3	391.68	97.143	% Recov	09/08/03	70.000	130.000	
MSD	Beryllium	7440-41-7	345.7	85.739	% Recov	09/08/03	70.000	130.000	
MSD	Chromium	7440-47-3	387.268	96.049	% Recov	09/08/03	70.000	130.000	
MSD	Copper	7440-50-8	377.399	93.601	% Recov	09/08/03	70.000	130.000	
MSD	Mercury	7439-97-6	20.91	103.720	% Recov	09/08/03	70.000	130.000	
MSD	Nickel	7440-02-0	377.816	93.704	% Recov	09/08/03	70.000	130.000	
MSD	Lead	7439-92-1	389.8	96.677	% Recov	09/08/03	70.000	130.000	
MSD	Antimony	7440-36-0	424	105.159	% Recov	09/08/03	70.000	130.000	
MSD	Uranium	7440-61-1	375.7	93.180	% Recov	09/08/03	70.000	130.000	

Lab ID: W030000799

BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	376.7	93.706	% Recov	09/08/03	70.000	130.000	
MS	Arsenic	7440-38-2	377.936	94.014	% Recov	09/08/03	70.000	130.000	
MS	Barium	7440-39-3	363.93	90.530	% Recov	09/08/03	70.000	130.000	
MS	Beryllium	7440-41-7	349.8	87.015	% Recov	09/08/03	70.000	130.000	
MS	Chromium	7440-47-3	371.521	92.418	% Recov	09/08/03	70.000	130.000	
MS	Copper	7440-50-8	368.95	91.779	% Recov	09/08/03	70.000	130.000	
MS	Mercury	7439-97-6	20.09	99.950	% Recov	09/08/03	70.000	130.000	
MS	Nickel	7440-02-0	365.098	90.820	% Recov	09/08/03	70.000	130.000	
MS	Lead	7439-92-1	375	93.284	% Recov	09/08/03	70.000	130.000	
MS	Antimony	7440-36-0	398.5	99.129	% Recov	09/08/03	70.000	130.000	
MS	Uranium	7440-61-1	359.358	89.393	% Recov	09/08/03	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 18

SDG Number: WSCF20031193

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-006

Sample Date: 09/04/03

Receive Date: 09/04/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Silver	7440-22-4	382.6	95.174	% Recov	09/08/03	70.000	130.000	
MSD	Arsenic	7440-38-2	379.236	94.337	% Recov	09/08/03	70.000	130.000	
MSD	Barium	7440-39-3	361.83	90.007	% Recov	09/08/03	70.000	130.000	
MSD	Beryllium	7440-41-7	354.4	88.159	% Recov	09/08/03	70.000	130.000	
MSD	Chromium	7440-47-3	369.221	91.846	% Recov	09/08/03	70.000	130.000	
MSD	Copper	7440-50-8	367.85	91.505	% Recov	09/08/03	70.000	130.000	
MSD	Mercury	7439-97-6	19.73	98.062	% Recov	09/08/03	70.000	130.000	
MSD	Nickel	7440-02-0	363.198	90.348	% Recov	09/08/03	70.000	130.000	
MSD	Lead	7439-92-1	372.6	92.687	% Recov	09/08/03	70.000	130.000	
MSD	Antimony	7440-36-0	396.2	98.557	% Recov	09/08/03	70.000	130.000	
MSD	Uranium	7440-61-1	361.558	89.940	% Recov	09/08/03	70.000	130.000	

BATCH QC

BLANK	Silver	7440-22-4	<0.2	n/a	ug/L	09/08/03	-0.440	0.440	U
BLANK	Arsenic	7440-38-2	<0.3	n/a	ug/L	09/08/03	-0.660	0.660	U
BLANK	Barium	7440-39-3	<0.2	n/a	ug/L	09/08/03	-0.440	0.440	U
BLANK	Beryllium	7440-41-7	<0.3	n/a	ug/L	09/08/03	-0.660	0.660	U
BLANK	Chromium	7440-47-3	0.325	0.325	ug/L	09/08/03	-0.660	0.660	
BLANK	Copper	7440-50-8	<0.5	n/a	ug/L	09/08/03	-1.100	1.100	U
BLANK	Mercury	7439-97-6	<0.1	n/a	ug/L	09/08/03	-0.220	0.220	U
BLANK	Nickel	7440-02-0	<0.5	n/a	ug/L	09/08/03	-1.100	1.100	U
BLANK	Lead	7439-92-1	<1.2	n/a	ug/L	09/08/03	-2.640	2.640	U
BLANK	Antimony	7440-36-0	<0.5	n/a	ug/L	09/08/03	-1.100	1.100	U
BLANK	Uranium	7440-61-1	<0.1	n/a	ug/L	09/08/03	-0.220	0.220	U
LCS	Silver	7440-22-4	169.9	142.773	% Recov	09/08/03	85.000	115.000	
LCS	Arsenic	7440-38-2	200	102.564	% Recov	09/08/03	85.000	115.000	
LCS	Barium	7440-39-3	379.8	96.888	% Recov	09/08/03	85.000	115.000	
LCS	Beryllium	7440-41-7	72.98	96.919	% Recov	09/08/03	85.000	115.000	
LCS	Chromium	7440-47-3	81.87	94.647	% Recov	09/08/03	85.000	115.000	
LCS	Copper	7440-50-8	128.8	101.417	% Recov	09/08/03	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 19

SDG Number: WSCF20031193

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F03-006

Sample Date:

Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Mercury	7439-97-6	9.272	98.533	% Recov	09/08/03	85.000	115.000	
LCS	Nickel	7440-02-0	86.29	100.000	% Recov	09/08/03	85.000	115.000	
LCS	Lead	7439-92-1	95.69	101.259	% Recov	09/08/03	85.000	115.000	
LCS	Antimony	7440-36-0	135.2	97.971	% Recov	09/08/03	85.000	115.000	
LCS	Uranium	7440-61-1	378	97.423	% Recov	09/08/03	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 20

SDG Number: WSCF20031193

Matrix: SOLID

Test: Cyanide by Midi/Spectrophotom

SAF Number: F03-006

Sample Date: 08/13/03

Receive Date: 08/13/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W030000705

BATCH QC ASSOCIATED WITH SAMPLE

MS	Cyanide by Midi/Spectrophotom	57-12-5	96.5	96.500	% Recov	09/09/03	75.000	125.000	
MSD	Cyanide by Midi/Spectrophotom	57-12-5	95.5	95.500	% Recov	09/09/03	75.000	125.000	
SPK-RPD	Cyanide by Midi/Spectrophotom	57-12-5	95.500	1.042	RPD	09/09/03	0.000	20.000	

BATCH QC

BLANK	Cyanide by Midi/Spectrophotom	57-12-5	2.7	2.700	ug/L	09/09/03	-4.000	4.000	
BLNK-PREP	Cyanide by Midi/Spectrophotom	57-12-5	2.7	2.700	ug/L	09/09/03	-4.000	4.000	
DUP	Cyanide by Midi/Spectrophotom	57-12-5	n/a	n/a	RPD	09/09/03	0.000	20.000	
LCS	Cyanide by Midi/Spectrophotom	57-12-5	105.0	105.000	% Recov	09/09/03	85.000	115.000	
LCS-2	Cyanide by Midi/Spectrophotom	57-12-5	n/a	n/a	% Recov	09/09/03	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 21

SDG Number: WSCF20031193
Matrix: SOLID
Test: Americium by AEA

SAF Number: F03-006
Sample Date: 08/28/03
Receive Date: 08/28/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W030000775

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Americium-241	14596-10-2	3.1e-02	75.556	RPD	09/05/03	0.000	20.000	
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BATCH QC

BLANK	Americium-241	14596-10-2	3.6e-02	0.036	PCG	09/05/03	0.000	1000.000	
LCS	Americium-241	14596-10-2	12.8	97.338	% Recov	09/05/03	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 22

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: Plutonium Isotopes by AEA

SAF Number: F03-006
 Sample Date: 08/28/03
 Receive Date: 08/28/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W030000775									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Pu-239/240 by AEA	PU-239/240	5.2e-03	71.605	RPD	09/08/03	0.000	20.000	.
BATCH QC									
BLANK	Pu-239/240 by AEA	PU-239/240	4.5e-03	0.004	PCG	09/08/03	0.000	1000.000	
LCS	Pu-239/240 by AEA	PU-239/240	11.7	95.122	% Recov	09/08/03	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-006
 Sample Date: 08/28/03
 Receive Date: 08/28/03

2 - 23

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W030000775									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	2-Fluorophenol	367-12-4	2579.1	77.600	% Recove	09/09/03	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	2962.0	89.100	% Recove	09/09/03	56.000	122.000	
SURR	Nitrobenzene-d5	4165-60-0	2749.9	82.700	% Recove	09/09/03	64.000	111.000	
SURR	Phenol-d5	4165-62-2	2663.8	80.100	% Recove	09/09/03	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	2396.8	72.100	% Recove	09/09/03	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	2988.5	89.900	% Recove	09/09/03	35.000	150.000	
Lab ID: W030000789									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,2,4-Trichlorobenzene	120-82-1	3002.4	90.500	% Recov	09/09/03	46.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	2979.5	89.800	% Recov	09/09/03	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	2812.3	84.700	% Recov	09/09/03	59.000	106.000	
MS	2-Fluorophenol	367-12-4	2844.1	85.700	% Recove	09/09/03	42.000	105.000	
MS	Acenaphthene	83-32-9	3306.9	99.700	% Recov	09/09/03	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	4775.0	95.900	% Recov	09/09/03	61.000	106.000	
MS	2-Chlorophenol	95-57-8	4420.8	88.800	% Recov	09/09/03	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	3300.9	99.500	% Recov	09/09/03	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	3476.4	105.000	% Recove	09/09/03	56.000	122.000	
MS	Phenol	108-95-2	4674.7	93.900	% Recov	09/09/03	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	2893.5	87.200	% Recove	09/09/03	64.000	111.000	
MS	4-Nitrophenol	100-02-7	4390.9	88.200	% Recov	09/09/03	32.000	118.000	
MS	Pentachlorophenol	87-86-5	4150.7	83.400	% Recov	09/09/03	62.000	114.000	
MS	Phenol-d5	4165-62-2	2861.4	86.200	% Recove	09/09/03	54.000	120.000	
MS	Pyrene	129-00-0	3153.3	95.000	% Recov	09/09/03	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	3076.8	92.700	% Recove	09/09/03	24.000	122.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	3169.2	95.500	% Recove	09/09/03	35.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 24

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-006
 Sample Date: 09/03/03
 Receive Date: 09/03/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	1,2,4-Trichlorobenzene	120-82-1	3104.0	93.600	% Recov	09/09/03	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	3089.7	93.200	% Recov	09/09/03	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	2753.6	83.100	% Recov	09/09/03	59.000	106.000	
MSD	2-Fluorophenol	367-12-4	2809.2	84.700	% Recov	09/09/03	42.000	105.000	
MSD	Acenaphthene	83-32-9	3077.4	92.800	% Recov	09/09/03	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	4834.8	97.200	% Recov	09/09/03	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	4371.6	87.900	% Recov	09/09/03	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	3207.7	96.800	% Recov	09/09/03	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	3181.4	96.000	% Recov	09/09/03	56.000	122.000	
MSD	Phenol	108-95-2	4518.8	90.900	% Recov	09/09/03	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	2883.9	87.000	% Recov	09/09/03	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	3890.8	78.200	% Recov	09/09/03	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	4146.5	83.400	% Recov	09/09/03	62.000	114.000	
MSD	Phenol-d5	4165-62-2	2825.0	85.200	% Recov	09/09/03	54.000	120.000	
MSD	Pyrene	129-00-0	3106.2	93.700	% Recov	09/09/03	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	2891.3	87.200	% Recov	09/09/03	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	3107.4	93.700	% Recov	09/09/03	35.000	150.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	93.600	3.368	RPD	09/09/03	0.000	20.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	93.200	3.716	RPD	09/09/03	0.000	20.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	83.100	1.907	RPD	09/09/03	0.000	20.000	
SPK-RPD	2-Fluorophenol	367-12-4	84.700	1.174	% Recov	09/09/03	0.000	20.000	
SPK-RPD	Acenaphthene	83-32-9	92.800	7.169	RPD	09/09/03	0.000	20.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	97.200	1.346	RPD	09/09/03	0.000	20.000	
SPK-RPD	2-Chlorophenol	95-57-8	87.900	1.019	RPD	09/09/03	0.000	20.000	
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-64-7	96.800	2.751	RPD	09/09/03	0.000	20.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	96.000	8.955	% Recov	09/09/03	0.000	20.000	
SPK-RPD	Phenol	108-95-2	90.900	3.247	RPD	09/09/03	0.000	20.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	87.000	0.230	% Recov	09/09/03	0.000	20.000	
SPK-RPD	4-Nitrophenol	100-02-7	78.200	12.019	RPD	09/09/03	0.000	20.000	
SPK-RPD	Pentachlorophenol	87-86-5	83.400	0.000	RPD	09/09/03	0.000	20.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-006
 Sample Date: 09/03/03
 Receive Date: 09/03/03

2 - 25

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SPK-RPD	Phenol-d5	4165-62-2	85.200	1.167	%Recover	09/09/03	0.000	20.000	
SPK-RPD	Pyrene	129-00-0	93.700	1.378	RPD	09/09/03	0.000	20.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	87.200	6.115	%Recover	09/09/03	0.000	20.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	93.700	1.903	%Recover	09/09/03	0.000	20.000	

BATCH QC

BLANK	1,2-Dichlorobenzene	95-50-1	< 360	n/a	ug/Kg	09/09/03			U
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 290	n/a	ug/Kg	09/09/03			U
BLANK	1,3-Dichlorobenzene	541-73-1	< 320	n/a	ug/Kg	09/09/03			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 310	n/a	ug/Kg	09/09/03			U
BLANK	2,4-Dichlorophenol	120-83-2	< 80	n/a	ug/Kg	09/09/03			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 67	n/a	ug/Kg	09/09/03			U
BLANK	2,4,5-Trichlorophenol	95-95-4	< 73	n/a	ug/Kg	09/09/03			U
BLANK	2,4,6-Trichlorophenol	88-06-2	< 67	n/a	ug/Kg	09/09/03			U
BLANK	2,4-Dimethylphenol	105-67-9	< 67	n/a	ug/Kg	09/09/03			U
BLANK	2,6-Dinitrotoluene	606-20-2	< 67	n/a	ug/Kg	09/09/03			U
BLANK	2-Butoxyethanol	111-76-2	< 100	n/a	ug/Kg	09/09/03			U
BLANK	2-Chloronaphthalene	91-58-7	< 67	n/a	ug/Kg	09/09/03			U
BLANK	2-Fluorophenol	367-12-4	2697.9	80.900	%Recover	09/09/03	42.000	105.000	
BLANK	2-Methylnaphthalene	91-57-6	< 180	n/a	ug/Kg	09/09/03			U
BLANK	2-Methylphenol (cresol, o-)	95-48-7	< 67	n/a	ug/Kg	09/09/03			U
BLANK	2-Nitroaniline	88-74-4	< 67	n/a	ug/Kg	09/09/03			U
BLANK	2-Nitrophenol	88-75-5	< 170	n/a	ug/Kg	09/09/03			U
BLANK	3 & 4 Methylphenol Total	65794-96-9	< 110	n/a	ug/Kg	09/09/03	0.000	300.000	U
BLANK	3-Nitroaniline	99-09-2	< 67	n/a	ug/Kg	09/09/03			U
BLANK	4,6-Dinitro-2-methylphenol	534-52-1	< 670	n/a	ug/Kg	09/09/03			U
BLANK	4-Bromophenylphenyl ether	101-55-3	< 67	n/a	ug/Kg	09/09/03			U
BLANK	4-Chlorophenylphenyl ether	7005-72-3	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Acenaphthene	83-32-9	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Acenaphthylene	208-96-8	< 80	n/a	ug/Kg	09/09/03			U

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 26

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-006
 Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Anthracene	120-12-7	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Bis(2-chloroethyl) ether	111-44-4	< 250	n/a	ug/Kg	09/09/03			U
BLANK	Benzo(a)anthracene	56-55-3	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Benzo(b)fluoranthene	205-99-2	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Benzo(ghi)perylene	191-24-2	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Benzo(a)pyrene	50-32-8	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Bis(2-Chloroethoxy)methane	111-91-1	< 110	n/a	ug/Kg	09/09/03			U
BLANK	Bis(2-ethylhexyl) phthalate	117-81-7	< 560	n/a	ug/Kg	09/09/03			U
BLANK	Bis(2-chloro-1-methylethyl)eth	108-60-1	< 250	n/a	ug/Kg	09/09/03	0.000	10.000	U
BLANK	Benzo(k)fluoranthene	207-08-9	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Butylbenzylphthalate	85-68-7	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Carbazole	86-74-8	< 80	n/a	ug/Kg	09/09/03			U
BLANK	4-Chloroaniline	106-47-8	< 93	n/a	ug/Kg	09/09/03			U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 67	n/a	ug/Kg	09/09/03			U
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg	09/09/03			U
BLANK	Chrysene	218-01-9	< 67	n/a	ug/Kg	09/09/03			U
BLANK	3,3'-Dichlorobenzidine	91-94-1	< 80	n/a	ug/Kg	09/09/03			U
BLANK	Dibenz[a,h]anthracene	53-70-3	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Dibenzofuran	132-64-9	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Di-n-butylphthalate	84-74-2	< 87	n/a	ug/Kg	09/09/03			U
BLANK	Diethylphthalate	84-66-2	< 190	n/a	ug/Kg	09/09/03			U
BLANK	Dimethyl phthalate	131-11-3	< 67	n/a	ug/Kg	09/09/03			U
BLANK	2,4-Dinitrophenol	51-28-5	< 670	n/a	ug/Kg	09/09/03			U
BLANK	Di-n-octylphthalate	117-84-0	< 67	n/a	ug/Kg	09/09/03			U
BLANK	N-Nitrosodi-n-dipropylamine	621-64-7	< 67	n/a	ug/Kg	09/09/03			U
BLANK	2-Fluorobiphenyl	321-60-8	2999.7	90.000	%Recover	09/09/03	56.000	122.000	
BLANK	Fluorene	86-73-7	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Fluoranthene	206-44-0	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Hexachlorobenzene	118-74-1	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Hexachlorobutadiene	87-68-3	< 370	n/a	ug/Kg	09/09/03			U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-006
 Sample Date:
 Receive Date:

2 - 27

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Hexachlorocyclopentadiene	77-47-4	< 310	n/a	ug/Kg	09/09/03			U
BLANK	Hexachloroethane	67-72-1	< 470	n/a	ug/Kg	09/09/03			U
BLANK	Indeno[1,2,3-cd]pyrene	193-39-5	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Isophorone	78-59-1	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Phenol	108-95-2	< 100	n/a	ug/Kg	09/09/03			U
BLANK	Naphthalene	91-20-3	< 290	n/a	ug/Kg	09/09/03			U
BLANK	Nitrobenzene-d5	4165-60-0	2663.3	79.900	% Recov	09/09/03	64.000	111.000	
BLANK	Nitrobenzene	98-95-3	< 260	n/a	ug/Kg	09/09/03			U
BLANK	4-Nitrophenol	100-02-7	< 650	n/a	ug/Kg	09/09/03			U
BLANK	4-Nitroaniline	100-01-6	< 250	n/a	ug/Kg	09/09/03			U
BLANK	N-Nitrosodiphenylamine	86-30-6	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Pentachlorophenol	87-86-5	< 300	n/a	ug/Kg	09/09/03			U
BLANK	Phenanthrene	85-01-8	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Phenol-d5	4165-62-2	2686.4	80.600	% Recov	09/09/03	54.000	120.000	
BLANK	Pyrene	129-00-0	< 67	n/a	ug/Kg	09/09/03			U
BLANK	Tributyl phosphate	126-73-8	< 67	n/a	ug/Kg	09/09/03			U
BLANK	2,4,6-Tribromophenol	118-79-6	2469.0	74.100	% Recov	09/09/03	24.000	122.000	
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	3019.8	90.600	% Recov	09/09/03	35.000	150.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	2966.0	89.000	% Recov	09/09/03	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-46-7	2778.8	83.400	% Recov	09/09/03	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	2733.8	82.000	% Recov	09/09/03	59.000	106.000	
LCS	2-Fluorophenol	367-12-4	2515.7	75.500	% Recov	09/09/03	50.000	110.000	
LCS	Acenaphthene	83-32-9	2935.0	88.100	% Recov	09/09/03	61.000	116.000	
LCS	4-Chloro-3-methylphenol	59-50-7	4519.3	90.400	% Recov	09/09/03	61.000	106.000	
LCS	2-Chlorophenol	95-57-8	4374.7	87.500	% Recov	09/09/03	66.000	106.000	
LCS	N-Nitrosodi-n-dipropylamine	621-64-7	3206.0	96.200	% Recov	09/09/03	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	3190.6	95.700	% Recov	09/09/03	58.000	109.000	
LCS	Phenol	108-95-2	4603.8	92.100	% Recov	09/09/03	67.000	105.000	
LCS	Nitrobenzene-d5	4165-60-0	2658.1	79.700	% Recov	09/09/03	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	4391.6	87.800	% Recov	09/09/03	32.000	118.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 28

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F03-006
 Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Pentachlorophenol	87-86-5	3927.9	78.600	% Recov	09/09/03	62.000	114.000	
LCS	Phenol-d5	4165-62-2	2632.0	79.000	% Recov	09/09/03	59.000	116.000	
LCS	Pyrene	129-00-0	3138.2	94.100	% Recov	09/09/03	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	2660.3	79.800	% Recov	09/09/03	60.000	120.000	
LCS	Terphenyl-d14 (7CI)	98904-43-9	3073.0	92.200	% Recov	09/09/03	60.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 29

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: PCBs complete list

SAF Number: F03-006
 Sample Date: 08/28/03
 Receive Date: 08/28/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W030000775

BATCH QC ASSOCIATED WITH SAMPLE

SURR	Decachlorobiphenyl	2051-24-3	917.71	91.800	% Recov	09/09/03	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	884.18	88.400	% Recov	09/09/03	50.000	150.000	

Lab ID: W030000789

BATCH QC ASSOCIATED WITH SAMPLE

MS	Aroclor-1260	11096-82-5	784.60	76.000	% Recov	09/10/03	75.000	125.000	
MS	Decachlorobiphenyl	2051-24-3	771.45	74.700	% Recov	09/10/03	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8	774.06	74.900	% Recov	09/10/03	50.000	150.000	
MSD	Aroclor-1260	11096-82-5	769.68	76.100	% Recov	09/10/03	75.000	125.000	
MSD	Decachlorobiphenyl	2051-24-3	929.32	91.900	% Recov	09/10/03	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	805.17	79.600	% Recov	09/10/03	50.000	150.000	
SPK-RPD	Aroclor-1260	11096-82-5	76.100	0.131	RPD	09/09/03	0.000	25.000	
SPK-RPD	Decachlorobiphenyl	2051-24-3	91.900	20.648	RPD	09/09/03	0.000	20.000	
SPK-RPD	Tetrachloro-m-xylene	877-09-8	79.600	6.084	RPD	09/09/03	0.000	20.000	

BATCH QC

BLANK	Aroclor-1016	12674-11-2	< 50	n/a	ug/Kg	09/09/03		U
BLANK	Aroclor-1221	11104-28-2	< 100	n/a	ug/Kg	09/09/03		U
BLANK	Aroclor-1232	11141-16-5	< 50	n/a	ug/Kg	09/09/03		U
BLANK	Aroclor-1242	53469-21-9	< 50	n/a	ug/Kg	09/09/03		U
BLANK	Aroclor-1248	12672-29-6	< 50	n/a	ug/Kg	09/09/03		U
BLANK	Aroclor-1254	11097-69-1	< 50	n/a	ug/Kg	09/09/03		U
BLANK	Aroclor-1260	11096-82-5	< 50	n/a	ug/Kg	09/09/03		U
BLANK	Aroclor-1262	37324-23-5	< 50	n/a	ug/Kg	09/09/03		U
BLANK	Aroclor-1268	11100-14-4	< 50	n/a	ug/Kg	09/09/03		U
BLANK	Decachlorobiphenyl	2051-24-3	857.03	85.700	% Recov	09/09/03	50.000	150.000

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 30

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: PCBs complete list

SAF Number: F03-006
 Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Tetrachloro-m-xylene	877-09-8	902.28	90.200	% Recov	09/09/03	50.000	150.000	
LCS	Aroclor-1260	11096-82-5	948.86	94.900	% Recov	09/09/03	70.000	130.000	
LCS	Decachlorobiphenyl	2051-24-3	764.80	76.500	% Recov	09/09/03	50.000	150.000	
LCS	Tetrachloro-m-xylene	877-09-8	809.23	80.900	% Recov	09/09/03	50.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 31

SDG Number: WSCF20031193

Matrix: SOLID

Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F03-006

Sample Date: 08/28/03

Receive Date: 08/28/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W030000775

BATCH QC ASSOCIATED WITH SAMPLE

SURR	ortho-Terphenyl	Surr	84-15-1	23127	92.900	% Recov	09/08/03	70.000	130.000
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Lab ID: W030000789

BATCH QC ASSOCIATED WITH SAMPLE

MS	ortho-Terphenyl	Surr	84-15-1	24295	98.000	% Recov	09/09/03	70.000	130.000
MS	Total Pet. Hydrocarbons	Diesel	TPHDIESEL	91228	73.600	% Recov	09/09/03	75.000	125.000
MSD	ortho-Terphenyl	Surr	84-15-1	20720	83.500	% Recov	09/09/03	70.000	130.000
MSD	Total Pet. Hydrocarbons	Diesel	TPHDIESEL	97917	78.900	% Recov	09/09/03	75.000	125.000
SPK-RPD	ortho-Terphenyl	Surr	84-15-1	83.500	15.978	RPD	09/08/03	0.000	20.000
SPK-RPD	Total Pet. Hydrocarbons	Diesel	TPHDIESEL	78.900	6.951	RPD	09/08/03	0.000	20.000

BATCH QC

BLANK	Kerosene		TPHKEROSENE	< 3800	n/a	ug/Kg	09/08/03	0.000	100.000	U
BLANK	ortho-Terphenyl	Surr	84-15-1	24630	98.500	ug/Kg	09/08/03	70.000	130.000	
BLANK	Total Pet. Hydrocarbons	Diesel	TPHDIESEL	< 3800	n/a	ug/Kg	09/08/03	0.000	300.000	U
LCS	Kerosene		TPHKEROSENE	100640	80.500	% Recove	09/08/03	70.000	130.000	
LCS	ortho-Terphenyl	Surr	84-15-1	24278	97.100	% Recov	09/08/03	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 32

SDG Number: WSCF20031193

Matrix: SOLID

Test: Anions by Ion Chromatography

SAF Number: F03-006

Sample Date: 08/28/03

Receive Date: 08/28/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W030000775

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Chloride	16887-00-6	7.96e-01	37.219	RPD	09/11/03	0.000	20.000	
DUP	Fluoride	16984-48-8	<3.50e-1	n/a	RPD	09/11/03	0.000	20.000	U
DUP	Nitrogen in Nitrite	NO2-N	<4.50e-1	n/a	RPD	09/11/03	0.000	20.000	U
DUP	Nitrogen in Nitrate	NO3-N	2.14e +01	4.785	RPD	09/11/03	0.000	20.000	
DUP	Phosphate	14265-44-2	<6.50e-1	n/a	RPD	09/11/03	0.000	20.000	U
DUP	Sulfate	14808-79-8	3.61e +01	19.787	RPD	09/11/03	0.000	20.000	
MS	Chloride	16887-00-6	9.07e-01	91.616	% Recov	09/11/03	75.000	125.000	
MS	Fluoride	16984-48-8	4.58e-01	93.661	% Recov	09/11/03	75.000	125.000	
MS	Nitrogen in Nitrite	NO2-N	4.76e-01	94.444	% Recov	09/11/03	75.000	125.000	
MS	Nitrogen in Nitrate	NO3-N	3.51e-01	78.700	% Recov	09/11/03	75.000	125.000	
MS	Phosphate	14265-44-2	8.11e-01	84.567	% Recov	09/11/03	75.000	125.000	
MS	Sulfate	14808-79-8	1.55e +00	78.680	% Recov	09/11/03	75.000	125.000	
MSD	Chloride	16887-00-6	9.11e-01	92.020	% Recov	09/11/03	75.000	125.000	
MSD	Fluoride	16984-48-8	4.48e-01	91.616	% Recov	09/11/03	75.000	125.000	
MSD	Nitrogen in Nitrite	NO2-N	4.76e-01	94.444	% Recov	09/11/03	75.000	125.000	
MSD	Nitrogen in Nitrate	NO3-N	4.49e-01	100.673	% Recov	09/11/03	75.000	125.000	
MSD	Phosphate	14265-44-2	7.88e-01	82.169	% Recov	09/11/03	75.000	125.000	
MSD	Sulfate	14808-79-8	1.42e +00	72.081	% Recov	09/11/03	75.000	125.000	

BATCH QC

BLANK	Chloride	16887-00-6	<1.40e-2	n/a	mg/L	09/11/03	0.000	300.000	U
BLANK	Chloride	16887-00-6	<1.40e-2	n/a	mg/L	09/11/03	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<7.00e-3	n/a	mg/L	09/11/03	0.000	300.000	U
BLANK	Fluoride	16984-48-8	<7.00e-3	n/a	mg/L	09/11/03	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<9.00e-3	n/a	mg/L	09/11/03	0.000	300.000	U
BLANK	Nitrogen in Nitrite	NO2-N	<9.00e-3	n/a	mg/L	09/11/03	0.000	300.000	U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031193

Matrix: SOLID

Test: Anions by Ion Chromatography

SAF Number: F03-006

Sample Date:

Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Nitrogen in Nitrate	NO3-N	<5.00e-3	n/a	mg/L	09/11/03	0.000	300.000	U
BLANK	Nitrogen in Nitrate	NO3-N	<5.00e-3	n/a	mg/L	09/11/03	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<1.30e-2	n/a	mg/L	09/11/03	0.000	300.000	U
BLANK	Phosphate	14265-44-2	<1.30e-2	n/a	mg/L	09/11/03	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<2.40e-2	n/a	mg/L	09/11/03	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<2.40e-2	n/a	mg/L	09/11/03	0.000	300.000	U
LCS	Chloride	16887-00-6	2.00e+02	100.000	% Recov	09/11/03	80.000	120.000	
LCS	Fluoride	16984-48-8	9.21e+01	93.313	% Recov	09/11/03	80.000	120.000	
LCS	Nitrogen in Nitrite	NO2-N	1.05e+02	105.000	% Recov	09/11/03	80.000	120.000	
LCS	Nitrogen in Nitrate	NO3-N	9.01e+01	100.000	% Recov	09/11/03	80.000	120.000	
LCS	Phosphate	14265-44-2	1.88e+02	97.007	% Recov	09/11/03	80.000	120.000	
LCS	Sulfate	14808-79-8	4.01e+02	100.501	% Recov	09/11/03	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 34

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: Ammonia (N) by IC

SAF Number: F03-006
 Sample Date: 08/28/03
 Receive Date: 08/28/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W030000775

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Ammonia (N) by IC	7664-41-7	<2.00e-1	n/a	RPD	09/23/03	0.000	20.000	U
MS	Ammonia (N) by IC	7664-41-7	1.63e-01	98.788	% Recov	09/23/03	75.000	125.000	
MSD	Ammonia (N) by IC	7664-41-7	1.53e-01	92.727	% Recov	09/23/03	75.000	125.000	

BATCH QC

BLNK-PREP	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	Ratio	09/23/03		U
BLNK-PREP	Ammonia (N) by IC	7664-41-7	<4.00e-3	n/a	Ratio	09/23/03		U
LCS	Ammonia (N) by IC	7664-41-7	7.65e+01	92.280	% Recov	09/23/03	80.000	120.000

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 35

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: Uranium Isotopes by AEA

SAF Number: F03-006
 Sample Date: 08/28/03
 Receive Date: 08/28/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W030000775

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Uranium-238	U-238	1.4e-01	2.899	RPD	09/05/03	0.000	20.000	
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BATCH QC

BLANK	Uranium-238	24678-82-8	9.5e-03	0.009	PCG	09/05/03	0.000	1000.000	
LCS	Uranium-238	24678-82-8	3.9e +01	102.875	% Recov	09/05/03	75.000	125.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031193

Matrix: SOLID

Test: Gamma Energy Analysis-grd H2O

SAF Number: F03-006

Sample Date: 08/28/03

Receive Date: 08/28/03

2 - 36

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W030000775									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Actinium-228	14331-83-0	5.06e-01	9.416	RPD	09/24/03	0.000	20.000	
DUP	Americium-241	14596-10-2	U-1.39e-3	n/a	RPD	09/24/03	0.000	20.000	
DUP	Bismuth-212	14913-49-6	3.45e-01	7.519	RPD	09/24/03	0.000	20.000	
DUP	Bismuth-214	14733-03-0	4.39e-01	10.980	RPD	09/24/03	0.000	20.000	
DUP	Cerium-144	14762-78-8	U-1.63e-2	n/a	RPD	09/24/03	0.000	20.000	
DUP	Cobalt-60	10198-40-0	U6.22e-03	n/a	RPD	09/24/03	0.000	20.000	
DUP	Cesium-134	13967-70-9	U2.45e-02	n/a	RPD	09/24/03	0.000	20.000	
DUP	Cesium-137	10045-97-3	U2.76e-03	n/a	RPD	09/24/03	0.000	20.000	
DUP	Europium-152	14683-23-9	U1.21e-02	n/a	RPD	09/24/03	0.000	20.000	
DUP	Europium-154	15585-10-1	U6.67e-03	n/a	RPD	09/24/03	0.000	20.000	
DUP	Europium-155	14391-16-3	U3.51e-02	n/a	RPD	09/24/03	0.000	20.000	
DUP	Niobium-94	14681-63-1	U4.51e-03	n/a	RPD	09/24/03	0.000	20.000	
DUP	Lead-212	15092-94-1	5.08e-01	12.373	RPD	09/24/03	0.000	20.000	
DUP	Lead-214	15067-28-4	4.97e-01	11.564	RPD	09/24/03	0.000	20.000	
DUP	Radium-226	13982-63-3	4.39e-01	10.980	RPD	09/24/03	0.000	20.000	
DUP	Radium-228	15262-20-1	5.06e-01	9.416	RPD	09/24/03	0.000	20.000	
DUP	Ruthenium-103	13968-53-1	U1.93e-03	n/a	RPD	09/24/03	0.000	20.000	
DUP	Ruthenium-106	13967-48-1	U2.19e-02	n/a	RPD	09/24/03	0.000	20.000	
DUP	Antimony-125	14234-35-6	U1.24e-02	n/a	RPD	09/24/03	0.000	20.000	
DUP	Tin-113	13966-06-8	U-1.01e-3	n/a	RPD	09/24/03	0.000	20.000	
DUP	Tin-126	15832-50-5	U1.24e-01	n/a	RPD	09/24/03	0.000	20.000	
DUP	Thorium-234	15065-10-8	5.37e-01	n/a	RPD	09/24/03	0.000	20.000	
DUP	Thallium-208	14913-50-9	1.52e-01	6.984	RPD	09/24/03	0.000	20.000	
DUP	Uranium-235	15117-96-1	U4.40e-02	n/a	RPD	09/24/03	0.000	20.000	
DUP	Zinc-65	13982-39-3	U-1.06e-2	n/a	RPD	09/24/03	0.000	20.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031193

Matrix: SOLID

Test: Gamma Energy Analysis-grd H₂O

SAF Number: F03-006

Sample Date:

Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BATCH QC									
BLANK	Actinium-228	14331-83-0	U9.08e-03	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Americium-241	14596-10-2	U-1.05e-3	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Bismuth-212	14913-49-6	U3.72e-03	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Bismuth-214	14733-03-0	6.75e-01	0.675	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Cerium-144	14762-78-8	U-1.31e-2	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Cobalt-60	10198-40-0	U-7.00e-4	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Cesium-134	13967-70-9	U-3.80e-3	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Cesium-137	10045-97-3	U3.85e-03	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Europium-152	14683-23-9	U-5.57e-3	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Europium-154	15585-10-1	U7.25e-03	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Europium-155	14391-16-3	U8.72e-03	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Niobium-94	14681-63-1	U-2.79e-3	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Lead-212	15092-94-1	U1.63e-02	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Lead-214	15067-28-4	4.92e-01	0.492	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Radium-226	13982-63-3	6.75e-01	0.675	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Radium-228	15262-20-1	U9.08e-03	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Ruthenium-103	13968-53-1	U-3.92e-3	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Ruthenium-106	13967-48-1	U5.22e-02	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Antimony-125	14234-35-6	U4.40e-03	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Tin-113	13966-06-8	U-8.60e-4	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Tin-126	15832-50-5	U3.96e-02	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Thorium-234	15065-10-8	U-2.07e-1	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Thallium-208	14913-50-9	U7.52e-03	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Uranium-235	15117-96-1	U1.59e-02	n/a	pCi/g	09/24/03	-10000.000	1000.000	
BLANK	Zinc-65	13982-39-3	U1.65e-02	n/a	pCi/g	09/24/03	-10000.000	1000.000	
LCS	Americium-241	14596-10-2	3.79e+03	96.684	% Recov	09/10/03	80.000	120.000	
LCS	Cobalt-60	10198-40-0	4.25e+03	101.432	% Recov	09/10/03	80.000	120.000	
LCS	Cesium-137	10045-97-3	3.77e+03	105.307	% Recov	09/10/03	80.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031193

Matrix: SOLID

Test: NWTPH-GX TPH Gasoline Range

SAF Number: F03-006

Sample Date: 08/28/03

Receive Date: 08/28/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W030000775

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	< 250	n/a	RPD	09/11/03	0.000	20.000	U
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3310	95.942	% Recov	09/11/03	50.000	150.000	
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3490	101.159	% Recov	09/11/03	50.000	150.000	
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	101.159	5.294	RPD	09/11/03	0.000	20.000	

BATCH QC

BLANK	Total Pet. Hydrocarbons Gas	TPHGASOLINE	< 250	n/a	mg/L	09/11/03	0.000	300.000	U
LCS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3660	106.087	% Recov	09/11/03	85.000	115.000	

WSCF ANALYTICAL LABORATORY QC REPORT

2 - 39

SDG Number: WSCF20031193
 Matrix: SOLID
 Test: Alcohols, Glycols - 8015

SAF Number: F03-006
 Sample Date: 08/28/03
 Receive Date: 08/28/03

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W030000775
BATCH QC ASSOCIATED WITH SAMPLE

DUP	2-Bromoethanol	540-51-2	16200	20.994	RPD	09/11/03	0.000	25.000	
DUP	Diethyl ether	60-29-7	<5000	n/a	RPD	09/11/03	0.000	25.000	U
DUP	Ethylene glycol	107-21-1	<5000	n/a	RPD	09/11/03	0.000	25.000	U
DUP	Methanol	67-56-1	<1000	n/a	RPD	09/11/03	0.000	25.000	U
MS	2-Bromoethanol	540-51-2	19300	96.500	%Recover	09/11/03	70.000	125.000	
MS	Diethyl ether	60-29-7	15300	76.500	%Recover	09/11/03	75.000	125.000	
MS	Ethylene glycol	107-21-1	15800	79.000	%Recover	09/11/03	75.000	125.000	
MS	Methanol	67-56-1	19400	97.000	%Recover	09/11/03	75.000	125.000	
MSD	2-Bromoethanol	540-51-2	18000	90.000	%Recover	09/11/03	70.000	125.000	
MSD	Diethyl ether	60-29-7	19200	96.000	%Recover	09/11/03	75.000	125.000	
MSD	Ethylene glycol	107-21-1	19100	95.500	%Recover	09/11/03	75.000	125.000	
MSD	Methanol	67-56-1	19700	98.500	%Recover	09/11/03	75.000	125.000	
SPK-RPD	2-Bromoethanol	540-51-2	90.000	6.971	RPD	09/11/03	0.000	20.000	
SPK-RPD	Diethyl ether	60-29-7	96.000	22.609	RPD	09/11/03	0.000	20.000	
SPK-RPD	Ethylene glycol	107-21-1	95.500	18.911	RPD	09/11/03	0.000	20.000	
SPK-RPD	Methanol	67-56-1	98.500	1.535	RPD	09/11/03	0.000	20.000	

BATCH QC

BLANK	2-Bromoethanol	540-51-2	16700	0.835	ug/Kg	09/11/03	0.000	10.000	
BLANK	Diethyl ether	60-29-7	<5000	n/a	ug/Kg	09/11/03	0.000	10.000	U
BLANK	Ethylene glycol	107-21-1	<5000	n/a	ug/Kg	09/11/03	0.000	5.000	U
BLANK	Methanol	67-56-1	<1000	n/a	ug/Kg	09/11/03	0.000	10.000	U
LCS	2-Bromoethanol	540-51-2	16700	83.500	%Recover	09/11/03	70.000	130.000	
LCS	Diethyl ether	60-29-7	17300	86.500	%Recover	09/11/03	70.000	130.000	
LCS	Ethylene glycol	107-21-1	19500	97.500	%Recover	09/11/03	70.000	130.000	
LCS	Methanol	67-56-1	18900	94.500	%Recover	09/11/03	70.000	130.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20031193
Matrix: SOLID
Test: Alcohols, Glycols - 8015

SAF Number: F03-006
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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LABCORE Completed Worklist Report for Worklist# 20431

Analyst: skb

Instrument: ICP405

Book# _____

Method: _____ Rev/Mod _____

Worklist Comment:

Seq	Type	Sample#	R A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	BLANK		0	@ICP-GPP BI-32	SOLID	1.00	<0.1		ug/L
1	BLANK		0	@ICP-GPP B-32	SOLID	1.00	<0.102		ug/L
2	LCS		0	@ICP-GPP BI-32	SOLID	494	283	57.287 % Recovery	
2	LCS		0	@ICP-GPP B-32	SOLID	64.1	57.7	90.016 % Recovery	
3	SAMPLE	W030000817	0 M	@GPP6010 B-32	SOLID	N/A <	5.07	5.070 ug/g	
3	SAMPLE	W030000817	0 M	@GPP6010 BI-32	SOLID	N/A <	4.97	4.970 ug/g	
4	SAMPLE	W030000818	0 M	@GPP6010 B-32	SOLID	N/A <	5.08	5.080 ug/g	
4	SAMPLE	W030000818	0 M	@GPP6010 BI-32	SOLID	N/A <	4.98	4.980 ug/g	
5	SAMPLE	W030000819	0 M	@GPP6010 B-32	SOLID	N/A <	5.1	5.100 ug/g	
5	SAMPLE	W030000819	0 M	@GPP6010 BI-32	SOLID	N/A <	5.0	5.000 ug/g	
6	MS	W030000819	0 M	@GPP6010 B-32	SOLID	249	264	106.024 % Recovery	
6	MS	W030000819	0 M	@GPP6010 BI-32	SOLID	249	240	96.386 % Recovery	
7	MSD	W030000819	0 M	@GPP6010 B-32	SOLID	247	265	107.692 % Recovery	
7	MSD	W030000819	0 M	@GPP6010 BI-32	SOLID	247	244	98.785 % Recovery	
8	SAMPLE	W030000727	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.97	4.970 ug/g	
8	SAMPLE	W030000727	0 M	@ICP-GPP B-32	SOLID	N/A <	5.07	5.070 ug/g	
9	SAMPLE	W030000775	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.96	4.960 ug/g	
9	SAMPLE	W030000775	0 M	@ICP-GPP B-32	SOLID	N/A <	5.06	5.060 ug/g	
10	SAMPLE	W030000799	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.95	4.950 ug/g	
10	SAMPLE	W030000799	0 M	@ICP-GPP B-32	SOLID	N/A <	5.05	5.050 ug/g	
11	SAMPLE	W030000800	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.98	4.980 ug/g	
11	SAMPLE	W030000800	0 M	@ICP-GPP B-32	SOLID	N/A <	5.08	5.080 ug/g	
12	SAMPLE	W030000789	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.99	4.990 ug/g	
12	SAMPLE	W030000789	0 M	@ICP-GPP B-32	SOLID	N/A <	5.09	5.090 ug/g	
13	SAMPLE	W030000790	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.94	4.940 ug/g	
13	SAMPLE	W030000790	0 M	@ICP-GPP B-32	SOLID	N/A <	5.04	5.040 ug/g	
14	SAMPLE	W030000791	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.96	4.960 ug/g	
14	SAMPLE	W030000791	0 M	@ICP-GPP B-32	SOLID	N/A <	5.06	5.060 ug/g	
15	SAMPLE	W030000792	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.98	4.980 ug/g	
15	SAMPLE	W030000792	0 M	@ICP-GPP B-32	SOLID	N/A <	5.08	5.080 ug/g	
16	SAMPLE	W030000793	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.98	4.980 ug/g	
16	SAMPLE	W030000793	0 M	@ICP-GPP B-32	SOLID	N/A <	5.08	5.080 ug/g	
17	SAMPLE	W030000794	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.92	4.920 ug/g	
17	SAMPLE	W030000794	0 M	@ICP-GPP B-32	SOLID	N/A <	5.02	5.020 ug/g	
18	SAMPLE	W030000795	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.95	4.950 ug/g	
18	SAMPLE	W030000795	0 M	@ICP-GPP B-32	SOLID	N/A <	5.05	5.050 ug/g	
19	SAMPLE	W030000796	0 M	@ICP-GPP BI-32	SOLID	N/A <	4.92	4.920 ug/g	
19	SAMPLE	W030000796	0 M	@ICP-GPP B-32	SOLID	N/A <	5.01	5.010 ug/g	
SPK-RPD		W030000819	0 M	@GPP6010 B-32	SOLID	106.024	107.692	1.561 RPD	
SPK-RPD		W030000819	0 M	@GPP6010 BI-32	SOLID	96.386	98.785	2.458 RPD	

Units shown for QC (BLK/BKG) may not reflect the actual units.

T4180-03-SLF-042

ATTACHMENT 3

SAMPLE RECEIPT INFORMATION

Consisting of 4 pages
Cover page not included

VJ

Waste Sampling and Characterization Facility
 P.O. BOX 1970 S3-30, Richland, WA 99352
 PHONE: (509) 373-7004/FAX: (509) 373-7134

mod on

9/3/03

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Removed VOA

Ground Water Protection Program

Richland, WA 99352
 Attn: Steve Trent

Customer Code: GPP
 PO#: 117504/ES20
 Group#: 20031193
 Project#: F03-006
 Proj Mgr: STEVE TRENT A0-21
 Phone: 373-5869

The following samples were received from you on 08/28/03. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Matrix	Sample Date
		Tests Scheduled	
W030000775	B173W7	TRENT	Solid, or handle as if solid
		@2008	@8015GPP @AEA-30 @AEA-31 @AEA-32
		@GEA-GPP	@IC-30 @ICP-GPP @PCBGPP @SVOCGPP @TPHD
		@TPHG-WA	CN-02 NH4-IC PERSOLID PH-30

Test Acronym Description

Test Acronym	Description
@2008	ICP-2008 MS All possible metal
@8015GPP	Alcohols, Glycols - 8015
@AEA-30	Plutonium Isotopics by AEA
@AEA-31	Americium by AEA
@AEA-32	Uranium Isotopics by AEA
@GEA-GPP	Gamma Energy Analysis-grd H2O
@IC-30	Anions by Ion Chromatography
@ICP-GPP	ICP Metals Analysis, Grd H2O P
@PCBGPP	PCBs complete list
@SVOCGPP	SW-846 8270B Semi-Vol's
@TPHD-WA	WTPH-D TPH Diesel Range (Wa)
@TPHG-WA	NWTPH-GX TPH Gasoline Range
CN-02	Cyanide by Midi/Spectrophotom
NH4-IC	Ammonia (N) by IC
PERSOLID	Percent Solids
PH-30	pH Soil and Waste Measurement

FH-Central Plateau Project		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F03-006-199	Page 1 of 1		
Collector Pope/Pfister/Hughes/Johansen		Company Contact LC Hulstrom Telephone No. 373-3928			Project Coordinator TRENT, SJ		Price Code	8N	Data Turnaround		
Project Designation 200-PW-2/200-PW-4 OU - Borehole Soil Sampling		Sampling Location 1173071423 216-A-36B (C9248) - 318.5-321' (C4160)			SAF No. F03-006		Air Quality	<input type="checkbox"/>	45 Days		
Ice Chest No.		Field Logbook No. HNF-N-3361		COA 117504ES10		Method of Shipment Federal Express					
Shipped To Waste Sampling & Characterization		Offsite Property No.				Bill of Lading/Air Bill No.					
POSSIBLE SAMPLE HAZARDS/REMARKS Special Handling and/or Storage 2003(193)		Preservation	Cool 4C	COOLIC	Cool 4C	Cool 4C					
		Type of Container	G ^a	aG	G ^a	G ^a					
		No. of Container(s)	1	1	2	1					
		Volume	40mL	40mL	40mL	425mL 500 mL					
SAMPLE ANALYSIS				See item (1) in Special Instructions.	See item (2) in Special Instructions.	See item (3) in Special Instructions.	See item (4) in Special Instructions.				
Sample No.	Matrix *	Sample Date	Sample Time								
B173W7	SOIL	8-28-3	12:10	X	X	X	X				
W1300075											
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Report kerosene and diesel range compounds from WTPH-D analysis. FH acknowledges that holding times (less than 14 days) may not be met by the lab due to the rad characteristics. MAN 04-03-03 - REMOVE VOLK FOR GPRS REQUEST (1) VOA - 8280A (TCL); VOA - 8260A (Add-On) (2-Pentanone, Benzyl alcohol, n-Butylbenzene) (2) Semi-VOA - 8270A (TCL); Semi-VOA - 8270A (Add-On) (2-Butoxyethanol, Tributyl phosphate); TPH-Diesel Range - WTPH-D; TPH-Gasoline Range - WTPH-G; PCBs - 8082 (3) Alcohols, Glycols, & Ketones - 8015 (Diethyl ether, Ethylene glycol, Methanol) (4) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155); Gamma Spec - Add-on (Antimony-125, Cesium-134, Radium-226, Radium-228, Tin-126); Isotopic Plutonium; Americium-241; Isotopic Uranium; Trace Elements ICP/MS - 200.8 (Complete) (Antimony, Arsenic, Barium, Beryllium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Uranium); ICP Metals - 6010A (Add-on) (Bismuth, Boron); IC Anions - 300.0 (Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphate, Sulfate); Cyanide (Total) - 335.2; Cations (IC) - 300.7 (Nitrogen in ammonium); pH (Soil) - 9045			Matrix *
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Title							Date/Time			
FINAL SAMPLE DISPOSITION	Disposed By							Date/Time			

VIC.

PLEASE REMOVE THE
VOAS AND VOA ADD-ONS FROM
THE LOGIN FOR SDG

20031193

THANKS,
MIKE

Neely, Michael

From: Neely, Michael
Sent: Wednesday, September 03, 2003 8:29 AM
To: Trent, Stephen J
Cc: Dale, Troy F; Trechter, John E Jr.; Beebe, Kevin L; Sims, Vic T; Ayres, Doris E; Thomas, Greg S
Subject: RE: SDG 20031193 COC Discrepancy

Steve:

Okay, as per your request, WSCF will cancel the request for the VOA target compound list (TCL) analysis as well as for the VOA add-on (i.e., 2-pentanone, benzyl alcohol, and n-butylbenzene) analysis for SDG 20031193.

Thanks,
Mike Neely

-----Original Message-----

From: Trent, Stephen J
Sent: Wednesday, September 03, 2003 8:22 AM
To: Neely, Michael
Cc: Dale, Troy F; Trechter, John E Jr.; Beebe, Kevin L; Sims, Vic T; Ayres, Doris E; Thomas, Greg S
Subject: RE: SDG 20031193 COC Discrepancy

Mike,

The VOA analysis is not required for this sample. Please cancel the VOA analysis.

Regards,

Steve Trent

-----Original Message-----

From: Neely, Michael
Sent: Tuesday, September 02, 2003 10:55 AM
To: Trent, Stephen J
Cc: Dale, Troy F; Trechter, John E Jr.; Beebe, Kevin L; Sims, Vic T
Subject: SDG 20031193 COC Discrepancy
Importance: High

Steve:

It was brought to my attention this morning that there is a discrepancy in the chain of custody (COC) for sample delivery group (SDG) 20031193, which was delivered to the WSCF Lab Thursday, 08-28-03, afternoon. This SDG corresponds to WSCF sample number W030000775, and GPP sample number B173W7 that was delivered under sampling authorization form (SAF) F03-006. The COC indicates that two (2) 40-mL volatile organic analyses (VOA) sample vials were collected in the field. However, neither VOA vial was delivered to the WSCF Lab on Thursday with the rest of the sample containers. Please advise me on whether or not GPP will be re-sampling in order

to provide a VOA sample, or if GPP would like WSCF to proceed with the remainder of the analyses (i.e., minus the VOA). Thanks for your help with this.

Thanks,
Mike Neely
WSCF (MO-280/B-103/600)
Fluor Hanford, Mail Stop S3-30
Phone: 509-373-0654
Cell: 509-528-2666
Pager: 509-373-PAGE, Extension 6730
FAX: 509-372-0456
E-Mail: michael_neely@rl.gov